

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
IOWA, Northeast				
FAYETTE COUNTY --- 2.8 S WEST UNION [42.93, -91.81]				
	07/07/09 20:00 CST		0	Hail (0.88 in)
	07/07/09 20:00 CST		0	Source: Public
FAYETTE COUNTY --- 0.7 N FAYETTE [42.84, -91.80]				
	07/07/09 20:10 CST		10K	Thunderstorm Wind (EG 55 kt)
	07/07/09 20:10 CST		0	Source: Newspaper
FAYETTE COUNTY --- 7.9 NNW WESTGATE [42.87, -92.08], 2.6 SW RANDALIA [42.84, -91.91]				
	07/10/09 02:00 CST		0.13M	Thunderstorm Wind (EG 70 kt)
	07/10/09 02:30 CST		0.48M	Source: Emergency Manager

Trees were uprooted and some property damage was reported on the Upper Iowa University campus in Fayette.

An isolated severe thunderstorm hit the town of Fayette during the evening of July 7. On the Upper Iowa University campus, trees were uprooted and some property damage was reported. Parts of Fayette were without power for several hours.

A two mile long path of destruction occurred from approximately 150th Street and S and U Avenues. Numerous barns, bins and outbuildings were demolished. One farm north of Sumner was hit particularly hard. The residence sustained damage and its attached garage was ripped away, with two vehicles in the garage a total loss. Also, a mobile home was severely damaged. Approximately 600 acres of corn and soybeans were shredded by the hail and wind, with crop damage totals nearly a half of a million dollars.

A line of severe thunderstorms moved across northeast Iowa during the early morning hours of July 10, causing severe wind damage in parts of Fayette County. The bulk of the damage occurred between the cities of Sumner and Fayette, in about a 2 to 3 mile wide swath around Highway 93, or 150th St, from around 3:00 a.m. to 3:30 a.m.

Many barns, outbuildings, and grain bins were damaged or destroyed between 140th and 160th St. in western Fayette County. Trees around local farms were also broken or knocked down. Crops in the path of the line of storms were either flattened or shredded by the combination of 1 inch hail and strong winds. Crop losses were reported to be high in this area. All of the damage surveyed was blown the same direction or in a divergent pattern. There was no evidence of rotation or tornado activity. Residents said they had hail for several minutes and high winds.

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Wind damage to crops east of Sumner, IA on July 10th. Photo by Todd Shea, NOAA/NWS La Crosse, WI.

FAYETTE COUNTY --- 1.5 E ORAN [42.70, -92.05]

07/14/09 22:45 CST	10K	Hail (0.75 in)
07/14/09 22:45 CST	30K	Source: Public

Numerous reports of pea to penny size hail were received. There was a one mile swath along X Avenue from Highway 3 to 50th Street where corn was shredded. Gardens in the town of Oran were also shredded due to hail. Torrential rain occurred with the hail.

A cluster of thunderstorms produced hail and wind, which damaged crops in the late evening of July 14.

HOWARD COUNTY --- 2.0 NE LIME SPGS [43.47, -92.25]

07/24/09 11:19 CST	0	Hail (0.88 in)
07/24/09 11:19 CST	10K	Source: Public

There were also strong winds in addition to the hail.

HOWARD COUNTY --- 0.7 N BONAIR [43.43, -92.20]

07/24/09 11:27 CST	5K	Thunderstorm Wind (MG 51 kt)
07/24/09 11:27 CST	15K	Source: Amateur Radio

HOWARD COUNTY --- 0.5 E CRESCO MUNI ARPT [43.37, -92.12]

07/24/09 11:30 CST	10K	Thunderstorm Wind (EG 55 kt)
07/24/09 11:30 CST	20K	Source: Trained Spotter

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Trees were down all of over town and there were power outages. A woman was reportedly injured when a tree may have fallen on her in a park. Heavy rain and street flooding was also reported.				
HOWARD COUNTY --- 3.5 N CRESCO [43.43, -92.12]				
	07/24/09 11:34 CST		0	Hail (0.75 in)
	07/24/09 11:34 CST		40K	Source: Amateur Radio
Dime size hail combined with strong winds damaged corn fields.				
HOWARD COUNTY --- 1.7 ENE CRESCO [43.39, -92.09]				
	07/24/09 11:35 CST		0	Hail (0.88 in)
	07/24/09 11:35 CST		50K	Source: Public
Hail was accompanied with wind gusts of 40 to 50 mph, which damaged crops.				
WINNESHIEK COUNTY --- 0.5 E RIDGEWAY [43.30, -91.99]				
	07/24/09 11:43 CST		0	Hail (0.75 in)
	07/24/09 11:43 CST		35K	Source: Public
Hail the size of dimes occurred with strong winds.				
WINNESHIEK COUNTY --- 3.5 W RIDGEWAY [43.30, -92.07]				
	07/24/09 11:45 CST		2.50K	Hail (1.00 in)
	07/24/09 11:45 CST		8K	Source: Public
Most of the hail was penny-sized, with very strong winds.				
WINNESHIEK COUNTY --- 1.5 SSW RIDGEWAY [43.28, -92.01]				
	07/24/09 11:55 CST		10K	Thunderstorm Wind (EG 52 kt)
	07/24/09 11:55 CST		10K	Source: Law Enforcement
A mobile home was pushed off its foundation, but the home did not roll over and no injuries were reported.				
WINNESHIEK COUNTY --- 0.7 NNE CALMAR [43.19, -91.88]				
	07/24/09 12:00 CST		2K	Hail (1.00 in)
	07/24/09 12:20 CST		25K	Source: SHAVE Project
Three inch diameter branches were also knocked down.				
WINNESHIEK COUNTY --- 1.5 NNW CALMAR [43.20, -91.89]				
	07/24/09 12:00 CST		20K	Hail (1.25 in)
	07/24/09 12:00 CST		80K	Source: Fire Department/Rescue
Hail was 8 to 9 inches deep in places and crops were shredded.				
WINNESHIEK COUNTY --- 0.9 NE CALMAR [43.19, -91.87]				
	07/24/09 12:03 CST		10K	Hail (1.75 in)
	07/24/09 12:03 CST		0.10M	Source: Law Enforcement
Hail the size of golf balls was reported along Highway 52.				
WINNESHIEK COUNTY --- 0.5 E CALMAR [43.18, -91.87]				
	07/24/09 12:04 CST		5K	Thunderstorm Wind (EG 56 kt)
	07/24/09 12:04 CST		10K	Source: Fire Department/Rescue
Trees were snapped, which were 12 to 18 inches in diameter.				
WINNESHIEK COUNTY --- 0.5 E CALMAR [43.18, -91.87]				
	07/24/09 12:04 CST		0.90M	Hail (1.75 in)
	07/24/09 12:14 CST		1.80M	Source: Fire Department/Rescue
Hail lasted approximately 10 minutes and broke windows and damaged siding.				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WINNESHIEK COUNTY --- 2.1 SE CALMAR [43.16, -91.85]	07/24/09 12:05 CST		1K	Hail (1.25 in)
	07/24/09 12:05 CST		7K	Source: SHAVE Project
WINNESHIEK COUNTY --- 0.5 E CALMAR [43.18, -91.87]	07/24/09 12:06 CST		3K	Hail (1.00 in)
	07/24/09 12:06 CST		10K	Source: Public
WINNESHIEK COUNTY --- 1.5 SSW OSSIAN [43.13, -91.79]	07/24/09 12:15 CST		10K	Hail (1.50 in)
	07/24/09 12:15 CST		25K	Source: Public
WINNESHIEK COUNTY --- 2.5 E FESTINA [43.12, -91.83]	07/24/09 12:15 CST		10K	Hail (1.00 in)
	07/24/09 12:15 CST		20K	Source: Public
WINNESHIEK COUNTY --- 3.7 SW CASTALIA [43.09, -91.76]	07/24/09 12:20 CST		10K	Hail (1.75 in)
	07/24/09 12:20 CST		80K	Source: Public
Golf ball size hail was reported on a family farm along the county line.				
FAYETTE COUNTY --- 2.5 NE WEST UNION SCOTT ARP [43.00, -91.76]	07/24/09 12:34 CST		0	Hail (0.75 in)
	07/24/09 12:34 CST		25K	Source: Public
Strong winds also occurred with the hail.				
FAYETTE COUNTY --- 1.7 SW CLERMONT VLY ARPT [42.96, -91.67]	07/24/09 12:36 CST		2M	Hail (2.00 in)
	07/24/09 12:36 CST		2.80M	Source: Public
Windows were broken in a house. Hail size was estimated.				
FAYETTE COUNTY --- 2.8 S ELGIN [42.91, -91.62]	07/24/09 12:48 CST		10K	Hail (1.00 in)
	07/24/09 12:48 CST		60K	Source: Public
Hail stripped plants and covered the ground.				
CLAYTON COUNTY --- 0.5 W VOLGA [42.80, -91.54]	07/24/09 12:55 CST		5K	Hail (1.50 in)
	07/24/09 12:55 CST		50K	Source: Fire Department/Rescue
CLAYTON COUNTY --- 2.5 W VOLGA [42.80, -91.58]	07/24/09 13:00 CST		0.11M	Hail (1.75 in)
	07/24/09 13:00 CST		3M	Source: Public
CLAYTON COUNTY --- 2.6 SE VOLGA [42.77, -91.50]	07/24/09 13:05 CST		8K	Hail (1.00 in)
	07/24/09 13:05 CST		40K	Source: Public
Hail was reported to have covered the ground.				
FAYETTE COUNTY --- 1.8 WSW ST LUCAS [43.06, -91.98]	07/24/09 13:06 CST		31K	Thunderstorm Wind (EG 51 kt)
	07/24/09 13:06 CST		1K	Source: SHAVE Project

Ash trees nearly 2 feet in diameter were blown down. One landed on a chicken house.

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
CLAYTON COUNTY --- 3.8 WSW MEDERVILLE [42.75, -91.49]				
	07/24/09 13:10 CST		0	Hail (0.88 in)
	07/24/09 13:10 CST		0	Source: Public
Hail did not last long.				
CLAYTON COUNTY --- 2.1 NW EDGEWOOD [42.69, -91.46]				
	07/24/09 13:17 CST		0.12M	Hail (1.75 in)
	07/24/09 13:17 CST		3M	Source: Public
Strong winds were also reported.				
CLAYTON COUNTY --- 0.9 NE EDGEWOOD [42.68, -91.42]				
	07/24/09 13:18 CST		5K	Hail (1.25 in)
	07/24/09 13:18 CST		20K	Source: Public
CLAYTON COUNTY --- 2.1 SE EDGEWOOD [42.65, -91.40]				
	07/24/09 13:20 CST		0.15M	Hail (1.75 in)
	07/24/09 13:20 CST		3M	Source: Fire Department/Rescue
Wind gusts were measured at 40 mph in town. Hail broke windows in town and caused considerable damage to crops. Rainfall totaled 0.47 inches.				
CLAYTON COUNTY --- 1.5 SSW EDGEWOOD [42.65, -91.44]				
	07/24/09 13:22 CST		5K	Hail (1.00 in)
	07/24/09 13:22 CST		50K	Source: Public
Tree limbs were also reported down.				
CLAYTON COUNTY --- 2.1 SE EDGEWOOD [42.65, -91.40]				
	07/24/09 13:23 CST		2K	Hail (1.25 in)
	07/24/09 13:23 CST		10K	Source: Fire Department/Rescue
ALLAMAKEE COUNTY --- 1.4 S LANSING [43.36, -91.23]				
	07/24/09 14:10 CST		0	Hail (0.88 in)
	07/24/09 14:10 CST		0	Source: Public
ALLAMAKEE COUNTY --- 2.8 N WEXFORD [43.32, -91.17]				
	07/24/09 14:54 CST		0	Hail (0.88 in)
	07/24/09 14:54 CST		20K	Source: COOP Observer
ALLAMAKEE COUNTY --- 6.0 SW NEW ALBIN [43.43, -91.40]				
	07/24/09 14:57 CST		2.50K	Hail (1.00 in)
	07/24/09 14:57 CST		10K	Source: Public
ALLAMAKEE COUNTY --- 2.1 ENE CHURCH [43.36, -91.31]				
	07/24/09 15:00 CST		5K	Hail (1.00 in)
	07/24/09 15:00 CST		20K	Source: Trained Spotter
ALLAMAKEE COUNTY --- 5.4 ESE CHESTER [43.44, -91.42]				
	07/24/09 15:19 CST		5K	Hail (1.00 in)
	07/24/09 15:19 CST		15K	Source: Public
This was the second round of one inch hail this afternoon.				
ALLAMAKEE COUNTY --- 1.7 WNW WEXFORD [43.29, -91.20]				
	07/24/09 15:20 CST		0	Hail (0.88 in)
	07/24/09 15:20 CST		0	Source: Public

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ALLAMAKEE COUNTY --- 2.1 SSW WEXFORD [43.25, -91.18]	07/24/09 15:31 CST		0	Thunderstorm Wind (MG 51 kt)
	07/24/09 15:31 CST		10K	Source: Amateur Radio
ALLAMAKEE COUNTY --- CHURCH [43.35, -91.35]	07/24/09 15:33 CST		0	Hail (0.75 in)
	07/24/09 15:33 CST		0	Source: Law Enforcement
Strong winds were also reported in Harpers Ferry.				
ALLAMAKEE COUNTY --- HARPERS FERRY [43.20, -91.15]	07/24/09 15:35 CST		5K	Thunderstorm Wind (EG 55 kt)
	07/24/09 15:35 CST		10K	Source: Law Enforcement
Numerous trees were reported down.				
ALLAMAKEE COUNTY --- 2.0 W ELON [43.27, -91.37]	07/24/09 16:00 CST		0	Hail (0.88 in)
	07/24/09 16:00 CST		0	Source: Emergency Manager
WINNESHIEK COUNTY --- 0.5 E CALMAR [43.18, -91.87]	07/24/09 16:20 CST		3K	Hail (1.00 in)
	07/24/09 16:20 CST		15K	Source: Law Enforcement
Some street flooding was reported as well.				
WINNESHIEK COUNTY --- 1.2 SE FT ATKINSON [43.14, -91.93]	07/24/09 16:26 CST		0.81M	Hail (2.00 in)
	07/24/09 16:26 CST		2M	Source: Law Enforcement
WINNESHIEK COUNTY --- 2.0 W OSSIAN [43.15, -91.82]	07/24/09 16:26 CST		0.97M	Hail (2.75 in)
	07/24/09 16:26 CST		1.90M	Source: Law Enforcement
WINNESHIEK COUNTY --- 2.9 SE CALMAR [43.15, -91.84]	07/24/09 16:29 CST		0.77M	Hail (1.75 in)
	07/24/09 16:29 CST		1.10M	Source: Public
This was the second round of large hail today.				
WINNESHIEK COUNTY --- 3.7 SW CASTALIA [43.09, -91.76]	07/24/09 16:33 CST		0.96M	Hail (2.75 in)
	07/24/09 16:33 CST		1.40M	Source: Law Enforcement
Large hail occurred along Highway W42 going into Fayette County.				
WINNESHIEK COUNTY --- 3.7 SW CASTALIA [43.09, -91.76]	07/24/09 16:36 CST		50K	Hail (4.25 in)
	07/24/09 16:36 CST		0.10M	Source: Public
This was the second round of large hail to fall in five hours, damaging many of the same fields and properties.				
FAYETTE COUNTY --- 5.9 ENE ELDORADO [43.08, -91.74]	07/24/09 16:44 CST		10K	Hail (1.75 in)
	07/24/09 16:44 CST		30K	Source: Public
FAYETTE COUNTY --- 1.5 NNW CLERMONT [43.02, -91.68]	07/24/09 16:53 CST		0	Hail (0.75 in)
	07/24/09 16:53 CST		0	Source: Public

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FAYETTE COUNTY --- 2.1 N ELDORADO [43.08, -91.85]				
	07/24/09 16:55 CST		1.10M	Hail (1.75 in)
	07/24/09 16:55 CST		2M	Source: Public
CLAYTON COUNTY --- HIGHLAND [42.90, -91.60]				
	07/24/09 17:20 CST		3K	Hail (1.00 in)
	07/24/09 17:20 CST		20K	Source: Public
FAYETTE COUNTY --- 0.7 N FAYETTE [42.84, -91.80]				
	07/24/09 17:25 CST		0	Hail (0.88 in)
	07/24/09 17:25 CST		0	Source: Trained Spotter
Very heavy rain also occurred.				
FAYETTE COUNTY --- 3.5 S FAYETTE [42.78, -91.80]				
	07/24/09 17:37 CST		10K	Hail (1.50 in)
	07/24/09 17:37 CST		50K	Source: Storm Chaser
Large hail was reported along Highway 150.				
FAYETTE COUNTY --- 2.5 E OELWEIN [42.68, -91.85]				
	07/24/09 17:54 CST		2.50K	Hail (1.00 in)
	07/24/09 17:54 CST		35K	Source: Trained Spotter
FAYETTE COUNTY --- 2.1 ENE WESTGATE [42.78, -91.96]				
	07/24/09 17:55 CST		5K	Hail (1.75 in)
	07/24/09 17:55 CST		60K	Source: Storm Chaser
FAYETTE COUNTY --- 0.5 W OELWEIN [42.68, -91.91]				
	07/24/09 18:03 CST		1K	Thunderstorm Wind (EG 52 kt)
	07/24/09 18:03 CST		15K	Source: Trained Spotter
A one foot diameter tree was knocked down. There was flooding on First Avenue as well.				
FAYETTE COUNTY --- 0.5 W OELWEIN [42.68, -91.91]				
	07/24/09 18:13 CST		7K	Hail (1.00 in)
	07/24/09 18:13 CST		25K	Source: Broadcast Media
This report was relayed from KWWL television station.				
Clusters of severe thunderstorms generated by an approaching cold front affected part of northeast Iowa during the afternoon and early evening of July 24. Reports of hail up to 2 inches in diameter were common from storm spotters, law enforcement officials and the public, with a report of close to softball size hail near Ossian (Winneshiek County). In addition, wind gusts between 55 and 65 mph occurred. Crop damage due to the large hail was estimated in the millions of dollars.				
Two sets of storms about five hours apart hit Fayette and Winneshiek Counties exceptionally hard with hail damage to buildings and many corn and bean fields stripped clean. In Fayette County, 250,000 acres were impacted with a total loss of 35,000 acres. In Winneshiek County, loss was estimated at 30,000 acres. Total damage costs combined with Fayette and Winneshiek Counties could have reached \$169 million. The Farm Service Agency director said both counties were "decimated" by the storm damage.				
In Allamakee County, 7,400 acres were affected with an estimated \$1 million in damage.				
In Clayton County, 47,000 acres were hit with \$10 million in damage.				
Howard County had 36,000 acres impacted, with a total loss of 10,000 acres and an estimated damage cost of \$11 million.				
CLAYTON COUNTY --- 0.5 W STRAWBERRY PT [42.68, -91.54]				
	07/24/09 13:30 CST		0	Heavy Rain
	07/24/09 13:30 CST		0	Source: Law Enforcement
Officers reported about 3 inches of water across Highway 3 in Clayton County.				

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ALLAMAKEE COUNTY --- 2.8 N WEXFORD [43.32, -91.17]				
	07/24/09 15:35 CST		0	Heavy Rain
	07/24/09 15:35 CST		0	Source: Amateur Radio
An inch of rain fell within 20 minutes.				
CLAYTON COUNTY --- 0.7 NE EDGEWOOD [42.68, -91.42], 1.2 NW STRAWBERRY PT [42.69, -91.55], 2.0 SSW STRAWBERRY PT [42.65, -91.55], 1.9 SSE EDGEWOOD [42.64, -91.42]				
	07/24/09 16:55 CST		15K	Flash Flood (due to Heavy Rain)
	07/24/09 19:30 CST		10K	Source: Law Enforcement
FAYETTE COUNTY --- 2.0 W OELWEIN [42.68, -91.94], 1.3 NE OELWEIN [42.69, -91.88], 1.8 ESE OELWEIN [42.67, -91.87], 2.1 WSW OELWEIN [42.67, -91.94]				
	07/24/09 16:55 CST		10K	Flash Flood (due to Heavy Rain)
	07/24/09 19:30 CST		20K	Source: Law Enforcement
WINNESHIEK COUNTY --- 0.5 E CALMAR [43.18, -91.87], 1.0 E CALMAR [43.18, -91.86], 1.1 ESE CALMAR [43.17, -91.86], 0.7 SE CALMAR [43.17, -91.87]				
	07/24/09 16:55 CST		20K	Flash Flood (due to Heavy Rain)
	07/24/09 19:30 CST		50K	Source: Fire Department/Rescue
Numerous small streams and drainage areas were flooded. A few roads south of Calmar had water over them.				
Thunderstorms with heavy rainfall hit some of the same areas repeatedly during the afternoon of July 24, which caused flash flooding. Streams and creeks overflowed their banks and sent water over some roads.				
WINNESHIEK COUNTY --- 5.3 ESE CASTALIA [43.08, -91.61]				
	07/30/09 19:08 CST		0	Hail (0.75 in)
	07/30/09 19:08 CST		0	Source: Trained Spotter
Penny sized hail fell but there were no winds with the storm.				
A thunderstorm produced dime size hail on the evening of July 30.				
MINNESOTA, Southeast				
FILLMORE COUNTY --- 2.1 ENE OSTRANDER [43.63, -92.39]				
	07/07/09 16:30 CST		0	Hail (0.75 in)
	07/07/09 16:30 CST		0	Source: COOP Observer
Hail occurred on Highway 63, along with very heavy rain.				
A thunderstorm produced hail the size of dimes on the evening of July 7.				
OLMSTED COUNTY --- 0.9 NW ROCHESTER [44.04, -92.48]				
	07/21/09 18:32 CST		0	Hail (0.75 in)
	07/21/09 18:32 CST		0	Source: Public
OLMSTED COUNTY --- 2.1 ENE ROCHESTER [44.04, -92.43]				
	07/21/09 18:35 CST		5K	Thunderstorm Wind (EG 55 kt)
	07/21/09 18:35 CST		20K	Source: Emergency Manager
Several trees were blown down at a farm.				
A severe thunderstorm produced damaging winds estimated between 60 and 65 mph just outside of Rochester.				
DODGE COUNTY --- 2.8 ESE RICE LAKE [44.10, -93.00]				

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	07/24/09 09:05 CST		0	Hail (0.75 in)
	07/24/09 09:05 CST		0	Source: Emergency Manager

DODGE COUNTY --- 2.8 N CLAREMONT [44.09, -93.00]

07/24/09 09:10 CST	15K	Hail (1.50 in)
07/24/09 09:10 CST	10K	Source: Emergency Manager

DODGE COUNTY --- 0.7 S CLAREMONT [44.04, -93.00]

07/24/09 09:16 CST	0	Hail (0.88 in)
07/24/09 09:16 CST	0	Source: Public

Hail the size of pennies and nickels was observed, although there was not a great deal of hail.

DODGE COUNTY --- 2.1 ESE CLAREMONT [44.04, -92.96]

07/24/09 09:21 CST	0.10M	Hail (2.00 in)
07/24/09 09:21 CST	0.22M	Source: Emergency Manager

DODGE COUNTY --- DODGE CENTER [44.03, -92.85]

07/24/09 09:26 CST	0.22M	Hail (2.00 in)
07/24/09 09:26 CST	0.13M	Source: Emergency Manager

OLMSTED COUNTY --- 2.8 WNW ORONOCO [44.19, -92.58]

07/24/09 09:29 CST	0	Hail (0.75 in)
07/24/09 09:29 CST	0	Source: Emergency Manager

Hail slightly larger than dime size was reported along Highway 52.

DODGE COUNTY --- 1.2 NE DODGE CENTER ARPT [44.03, -92.81]

07/24/09 09:31 CST	8K	Hail (1.50 in)
07/24/09 09:31 CST	20K	Source: Emergency Manager

DODGE COUNTY --- WEST CONCORD [44.15, -92.90]

07/24/09 09:31 CST	15K	Hail (1.00 in)
07/24/09 09:31 CST	10K	Source: Emergency Manager

DODGE COUNTY --- 2.0 NW MANTORVILLE [44.09, -92.78]

07/24/09 09:57 CST	5K	Hail (1.00 in)
07/24/09 09:57 CST	10K	Source: Emergency Manager

OLMSTED COUNTY --- 1.5 NNW STEWARTVILLE [43.87, -92.49]

07/24/09 09:58 CST	12K	Hail (1.00 in)
07/24/09 09:58 CST	10K	Source: Public

OLMSTED COUNTY --- 1.5 NNW STEWARTVILLE [43.87, -92.49]

07/24/09 09:58 CST	5K	Hail (1.00 in)
07/24/09 09:58 CST	0	Source: Public

FILLMORE COUNTY --- 1.6 WSW PRESTON FLLMR ARPT [43.67, -92.21]

07/24/09 10:53 CST	0.50K	Thunderstorm Wind (EG 50 kt)
07/24/09 10:53 CST	0	Source: Public

At Maple Springs Campground, there were several limbs downed, which were 3 to 4 inches in diameter.

DODGE COUNTY --- 1.7 NW CLAREMONT [44.07, -93.02]

07/24/09 16:53 CST	0	Hail (0.75 in)
07/24/09 16:53 CST	0	Source: Public

A cluster of severe thunderstorms was generated ahead of an approaching cold front during the morning of July 24. These storms produced hail up to 2 inches in diameter, as reported by storm spotters, law enforcement officials, emergency managers and the

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
public.				
WISCONSIN, Southwest				
CLARK COUNTY --- 0.4 WSW CHILI [44.63, -90.36]				
	07/04/09 14:00 CST		0	Funnel Cloud
	07/04/09 14:00 CST		0	Source: Trained Spotter
ADAMS COUNTY --- 1.4 WSW BIG FLATS [44.11, -89.83]				
	07/04/09 16:04 CST		0	Funnel Cloud
	07/04/09 16:04 CST		0	Source: Public
Law enforcement officials relayed a public report of a funnel cloud just west of Big Flats.				
A couple of funnel clouds were observed during the afternoon of July 4, none of which touched down.				
VERNON COUNTY --- 0.5 E READSTOWN [43.45, -90.76]				
	07/23/09 16:57 CST		0	Hail (0.75 in)
	07/23/09 16:57 CST		0	Source: Trained Spotter
A thunderstorm occurred on the evening of July 23, producing hail slightly larger than dimes.				
CRAWFORD COUNTY --- 1.2 SE FERRYVILLE [43.34, -91.08]				
	07/24/09 14:15 CST		10K	Hail (1.00 in)
	07/24/09 14:15 CST		40K	Source: COOP Observer
CRAWFORD COUNTY --- SENECA [43.27, -90.97]				
	07/24/09 14:28 CST		70K	Hail (1.00 in)
	07/24/09 14:28 CST		0.68M	Source: Post Office
CRAWFORD COUNTY --- 0.5 W STEUBEN [43.18, -90.86]				
	07/24/09 14:59 CST		0	Hail (0.88 in)
	07/24/09 14:59 CST		0	Source: Trained Spotter
GRANT COUNTY --- 0.7 S ANNATON [42.91, -90.63]				
	07/24/09 15:27 CST		10K	Hail (1.00 in)
	07/24/09 15:27 CST		50K	Source: Emergency Manager
GRANT COUNTY --- 2.6 SW ANNATON [42.89, -90.66]				
	07/24/09 15:31 CST		8K	Hail (1.00 in)
	07/24/09 15:31 CST		40K	Source: Emergency Manager
Winds were sustained at 30 mph.				
GRANT COUNTY --- 0.7 S ANNATON [42.91, -90.63]				
	07/24/09 15:33 CST		20K	Hail (1.75 in)
	07/24/09 15:33 CST		70K	Source: Emergency Manager
GRANT COUNTY --- 2.0 W LIVINGSTON [42.90, -90.47]				
	07/24/09 15:39 CST		5K	Hail (1.00 in)
	07/24/09 15:39 CST		45K	Source: Fire Department/Rescue
GRANT COUNTY --- 1.7 NW LANCASTER [42.87, -90.74]				
	07/24/09 15:40 CST		15K	Hail (1.00 in)
	07/24/09 15:40 CST		45K	Source: Law Enforcement
GRANT COUNTY --- 2.1 S ARTHUR [42.82, -90.45]				

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/24/09 15:40 CST		15K	Hail (1.00 in)
	07/24/09 15:40 CST		45K	Source: Law Enforcement
<hr/>				
GRANT COUNTY --- UNION [42.83, -90.52]				
	07/24/09 15:43 CST		6K	Hail (1.00 in)
	07/24/09 15:43 CST		40K	Source: Trained Spotter
A few pieces of hail were larger than quarter size and winds were also measured at 52.5 mph.				
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CRAWFORD COUNTY --- 1.0 W WAUZEKA [43.08, -90.90]				
	07/24/09 15:48 CST		0	Hail (0.88 in)
	07/24/09 15:48 CST		0	Source: Law Enforcement
Hail was reported at County Road N, east of Highway 27.				
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GRANT COUNTY --- 3.5 N PLATTEVILLE [42.78, -90.48]				
	07/24/09 15:48 CST		10K	Hail (1.25 in)
	07/24/09 15:48 CST		30K	Source: Trained Spotter
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CRAWFORD COUNTY --- 3.5 S EASTMAN [43.12, -91.02]				
	07/24/09 15:49 CST		0.30M	Hail (1.00 in)
	07/24/09 15:49 CST		0.45M	Source: Amateur Radio
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GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48]				
	07/24/09 15:55 CST		3K	Thunderstorm Wind (EG 55 kt)
	07/24/09 15:55 CST		20K	Source: Amateur Radio
Numerous shredded leaves were noted on trees from earlier wind and hail. Water runoff was high.				
<hr/>				
GRANT COUNTY --- 1.5 NNW PLATTEVILLE [42.75, -90.49]				
	07/24/09 15:55 CST		12K	Hail (1.75 in)
	07/24/09 15:55 CST		60K	Source: Amateur Radio
There was also a tree blown down on Old Lancaster Road.				
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GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48]				
	07/24/09 15:56 CST		3K	Hail (1.00 in)
	07/24/09 15:56 CST		25K	Source: Emergency Manager
In addition to the hail, there were wind gusts measured at 50 mph.				
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GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48]				
	07/24/09 15:57 CST		4K	Hail (1.00 in)
	07/24/09 15:57 CST		50K	Source: Amateur Radio
In addition to the hail, winds were also 40 mph.				
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GRANT COUNTY --- 0.7 N WOODMAN [43.09, -90.80]				
	07/24/09 16:00 CST		0	Hail (0.88 in)
	07/24/09 16:00 CST		0	Source: Emergency Manager
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GRANT COUNTY --- 0.5 E MT HOPE [42.97, -90.86]				
	07/24/09 16:02 CST		0	Hail (0.75 in)
	07/24/09 16:02 CST		0	Source: Emergency Manager
Wind gusts of 53 mph also occurred.				
<hr/>				
GRANT COUNTY --- 0.5 E MT HOPE [42.97, -90.86]				
	07/24/09 16:14 CST		0	Hail (0.88 in)
	07/24/09 16:14 CST		15K	Source: Amateur Radio

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Hail made the ground white.				
GRANT COUNTY --- 0.9 NE LANCASTER [42.86, -90.71]				
	07/24/09 16:22 CST		1.10M	Hail (1.75 in)
	07/24/09 16:22 CST		6.80M	Source: Emergency Manager
Large hail was reported on Borah Ridge Road.				
GRANT COUNTY --- 0.7 N BURTON [42.73, -90.82]				
	07/24/09 17:05 CST		2.50K	Hail (1.00 in)
	07/24/09 17:05 CST		30K	Source: Trained Spotter
GRANT COUNTY --- 3.4 NW MC CARTNEY [42.72, -90.89]				
	07/24/09 17:12 CST		10K	Hail (1.75 in)
	07/24/09 17:12 CST		70K	Source: Broadcast Media
GRANT COUNTY --- 0.5 W LOUISBURG [42.58, -90.56]				
	07/24/09 17:15 CST		30K	Thunderstorm Wind (EG 56 kt)
	07/24/09 17:15 CST		60K	Source: Emergency Manager
Ten power poles were snapped along County Road H, just east of Kieler. The town of Kieler was without power.				
GRANT COUNTY --- 0.9 NE POTOSI [42.69, -90.71]				
	07/24/09 17:17 CST		1.80M	Hail (1.75 in)
	07/24/09 17:17 CST		8M	Source: Emergency Manager
GRANT COUNTY --- 0.5 E LOUISBURG [42.58, -90.54]				
	07/24/09 17:27 CST		1.50M	Thunderstorm Wind (MG 68 kt)
	07/24/09 17:27 CST		1.20M	Source: Emergency Manager
GRANT COUNTY --- 1.5 NNW SINSINAWA [42.54, -90.54]				
	07/24/09 17:35 CST		25K	Thunderstorm Wind (EG 58 kt)
	07/24/09 17:35 CST		75K	Source: Emergency Manager
Power lines were down across much of the southern end of the county.				
<p>A cluster of severe thunderstorms generated by an approaching cold front affected part of southwest Wisconsin during the afternoon and early evening of July 24. Reports of hail up to golf ball size were common from storm spotters, law enforcement officials and the public. In addition, wind gusts of 60 to 70 mph occurred, although a gust of 78 mph was measured near Dickeyville (Grant County). In Grant County, Wisconsin, residential and business damage included 1000 homes and 200 businesses totaling over 4 million dollars. Agricultural losses could have been as high as 50 million dollars.</p>				
CRAWFORD COUNTY --- 2.0 SSW LYNXVILLE [43.22, -91.07], 2.5 SW LYNXVILLE [43.23, -91.09], 3.1 N LYNXVILLE [43.29, -91.06], 3.3 NNE LYNXVILLE [43.30, -91.03]				
	07/24/09 15:00 CST		15K	Flash Flood (due to Heavy Rain)
	07/24/09 17:50 CST		20K	Source: Law Enforcement
Mudslides were reported along Highway 35. The highway was closed temporarily, until mud and debris could be removed. A few cars were stranded and motorists were rescued, but there were no injuries reported.				
VERNON COUNTY --- 0.7 N DE SOTO [43.43, -91.20]				
	07/24/09 16:36 CST		0	Heavy Rain
	07/24/09 16:36 CST		0	Source: COOP Observer
GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48]				
	07/24/09 16:46 CST		0	Heavy Rain
	07/24/09 16:46 CST		0	Source: Amateur Radio
GRANT COUNTY --- 3.8 NNW ELLENBORO [42.83, -90.65], 2.7 SSE UNION [42.79, -90.50], 2.0 W PLATTEVILLE [42.73, -90.52], 1.4 E LANCASTER ARPT [42.78, -90.65]				

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/24/09 17:17 CST		10K	Flash Flood (due to Heavy Rain)
	07/24/09 19:30 CST		20K	Source: Emergency Manager
High water flooded sections of Highway 81 between Lancaster and Platteville.				
GRANT COUNTY --- KIELER [42.58, -90.60], 1.7 NNE KIELER [42.60, -90.58], 1.6 NNW KIELER [42.60, -90.61], 0.8 WNW KIELER [42.58, -90.61]				
	07/24/09 17:17 CST		8K	Flash Flood (due to Heavy Rain)
	07/24/09 19:30 CST		15K	Source: Law Enforcement
Water was reported over Highway 151 near Kieler.				
CRAWFORD COUNTY --- 0.7 N MT ZION [43.26, -90.73]				
	07/24/09 17:40 CST		0	Heavy Rain
	07/24/09 17:40 CST		0	Source: Trained Spotter
GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48]				
	07/24/09 17:48 CST		0	Heavy Rain
	07/24/09 17:48 CST		0	Source: Amateur Radio
Clusters of thunderstorms produced 2 to 4 inches of rain in about two hours, which caused flash flooding. There were mudslides, trees and debris along Highway 35 in Crawford County. Other highways that were reported to have water over the road included Highway 81 and 151.				
JACKSON COUNTY --- 3.1 NNW WINNEBAGO MISSION [44.37, -90.81]				
	07/27/09 13:18 CST		10K	Thunderstorm Wind (EG 52 kt)
	07/27/09 13:18 CST		0	Source: Law Enforcement
Sheriff department reported 25 to 30 trees were down along Highway 12 and County Roads K and E.				
JACKSON COUNTY --- 9.8 SSW CITY PT [44.22, -90.40]				
	07/27/09 14:17 CST		0	Hail (0.75 in)
	07/27/09 14:17 CST		0	Source: Public
Wind gusts were around 40 mph.				
JACKSON COUNTY --- 0.9 SE FRANKLIN [44.21, -91.11]				
	07/27/09 14:20 CST		2K	Thunderstorm Wind (EG 52 kt)
	07/27/09 14:20 CST		10K	Source: Law Enforcement
Two trees were blown down along County Road C.				
JACKSON COUNTY --- 1.4 N MELROSE [44.15, -91.00]				
	07/27/09 14:25 CST		3K	Hail (1.00 in)
	07/27/09 14:25 CST		0	Source: Public
JACKSON COUNTY --- MELROSE [44.13, -91.00]				
	07/27/09 14:25 CST		0	Hail (0.75 in)
	07/27/09 14:25 CST		0	Source: Public
MONROE COUNTY --- 4.3 NNE FOUR CORNERS [44.14, -90.90]				
	07/27/09 14:37 CST		0	Hail (0.75 in)
	07/27/09 14:37 CST		0	Source: Amateur Radio
MONROE COUNTY --- 1.5 SSE SPARTA [43.91, -90.81]				
	07/27/09 15:08 CST		0	Hail (0.88 in)
	07/27/09 15:08 CST		0	Source: Trained Spotter
MONROE COUNTY --- 2.1 S MC COY AAF ARPT [43.94, -90.73]				
	07/27/09 15:15 CST		3K	Thunderstorm Wind (EG 56 kt)
	07/27/09 15:15 CST		20K	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Several trees were damaged at the intersection of County Road AA and A. Damage continued for 2 miles to the east and southeast of this point.				
MONROE COUNTY --- SPARTA MUNI [43.97, -90.77]				
	07/27/09 15:15 CST		2.50K	Hail (1.00 in)
	07/27/09 15:15 CST		20K	Source: Trained Spotter
Some wind damage was also reported in Angelo.				
MONROE COUNTY --- 2.1 S MC COY AAF ARPT [43.94, -90.73]				
	07/27/09 15:18 CST		2K	Hail (1.00 in)
	07/27/09 15:18 CST		10K	Source: Trained Spotter
Some trees were reported down in the area as well.				
MONROE COUNTY --- 4.4 SSE MC COY AAF ARPT [43.91, -90.70]				
	07/27/09 15:18 CST		60K	Thunderstorm Wind (EG 59 kt)
	07/27/09 15:18 CST		20K	Source: Emergency Manager
Numerous trees were knocked down near Haven Avenue and County Road A and AA just south of Highway 16. Trees were knocked down on power lines and cars. Roofs were also blown off of mobile homes in that area.				
MONROE COUNTY --- 2.3 SSE MC COY AAF ARPT [43.94, -90.71]				
	07/27/09 15:20 CST		5K	Thunderstorm Wind (EG 55 kt)
	07/27/09 15:20 CST		0	Source: Trained Spotter
Trees were reported down along Highway 16 near Fort McCoy.				
ADAMS COUNTY --- 2.1 N FRIENDSHIP [44.00, -89.82]				
	07/27/09 15:22 CST		2K	Thunderstorm Wind (EG 52 kt)
	07/27/09 15:22 CST		0	Source: Law Enforcement
Trees were reported down.				
ADAMS COUNTY --- FRIENDSHIP [43.97, -89.82]				
	07/27/09 15:30 CST		3K	Thunderstorm Wind (EG 52 kt)
	07/27/09 15:30 CST		10K	Source: Law Enforcement
Downed trees were blocking a road just south of Friendship. Pea size hail was also reported.				
ADAMS COUNTY --- 4.0 E FRNDSHP ADAMS CO ARP [43.96, -89.70]				
	07/27/09 15:45 CST		5K	Thunderstorm Wind (EG 54 kt)
	07/27/09 15:45 CST		10K	Source: Law Enforcement
Trees were reported blown down in many areas east and northeast of Adams. Pea size hail was also reported.				
MONROE COUNTY --- 1.5 SSW WILTON [43.80, -90.54]				
	07/27/09 15:45 CST		0	Hail (0.88 in)
	07/27/09 15:45 CST		25K	Source: Public
There was dime and nickel size hail, but not enough to cover the ground.				
MONROE COUNTY --- 1.4 S WILTON [43.80, -90.53]				
	07/27/09 15:51 CST		0	Hail (0.75 in)
	07/27/09 15:51 CST		0	Source: Law Enforcement
MONROE COUNTY --- 1.4 S WILTON [43.80, -90.53]				
	07/27/09 15:53 CST		0	Hail (0.75 in)
	07/27/09 15:53 CST		0	Source: Public
CRAWFORD COUNTY --- 1.0 E FAIRVIEW [43.37, -90.93], 1.3 NNE STAR VLY [43.40, -90.86]				

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/27/09 16:16 CST		30K	Tornado (EF1, L: 4.04 mi , W: 75 yd)
	07/27/09 16:26 CST		40K	Source: Law Enforcement

Initial reports suggested seeing debris flying in the air. The tornado formed near a ridge area but traveled into nearby valleys hitting several farms and knocking down trees and branches in a narrow path. Hail was observed before the tornado as well.

CRAWFORD COUNTY --- 0.7 N SOLDIERS GROVE [43.41, -90.77]

07/27/09 16:25 CST	20K	Thunderstorm Wind (EG 58 kt)
07/27/09 16:25 CST	20K	Source: Law Enforcement

A building was damaged at the intersection of Highway 61 and Tavern Road.

VERNON COUNTY --- 2.6 ESE LA FARGE [43.56, -90.58]

07/27/09 16:40 CST	3K	Thunderstorm Wind (EG 55 kt)
07/27/09 16:40 CST	10K	Source: Amateur Radio

Trees were knocked down near County Road D and the Richland County line.

RICHLAND COUNTY --- 0.7 S FIVE PTS [43.31, -90.60]

07/27/09 16:46 CST	2K	Thunderstorm Wind (EG 52 kt)
07/27/09 16:46 CST	10K	Source: Amateur Radio

Trees were reported down.

RICHLAND COUNTY --- 0.7 S FIVE PTS [43.31, -90.60]

07/27/09 16:52 CST	1K	Hail (1.00 in)
07/27/09 16:52 CST	20K	Source: Trained Spotter

RICHLAND COUNTY --- 2.1 S FIVE PTS [43.29, -90.60]

07/27/09 16:52 CST	0	Hail (0.88 in)
07/27/09 16:52 CST	0	Source: Amateur Radio

GRANT COUNTY --- 2.0 W FENNIMORE [42.98, -90.69]

07/27/09 17:10 CST	0	Hail (0.75 in)
07/27/09 17:10 CST	0	Source: Trained Spotter

GRANT COUNTY --- 1.2 NE MUSCODA [43.19, -90.43]

07/27/09 17:25 CST	30K	Thunderstorm Wind (EG 57 kt)
07/27/09 17:25 CST	20K	Source: Law Enforcement

Power lines and trees were down throughout town.

GRANT COUNTY --- MONTFORT [42.97, -90.43]

07/27/09 18:12 CST	0	Hail (0.75 in)
07/27/09 18:12 CST	0	Source: Emergency Manager

GRANT COUNTY --- FENNIMORE [42.98, -90.65]

07/27/09 18:35 CST	2K	Hail (1.00 in)
07/27/09 18:35 CST	15K	Source: Emergency Manager

Low pressure triggered a cluster of severe thunderstorms during the afternoon and early evening of July 27. Damaging winds and large hail were reported by storm spotters, law enforcement officials and the public. In addition, a tornado was reported in Crawford County, which was the first confirmed tornado in this county since June 17, 1987.

A survey team from the La Crosse National Weather Service confirmed the tornado. The path length was 4 miles long and went in a northeasterly direction, touching down 1 mile east of Fairview and staying on the ground until 5 miles west of Soldiers Grove. For most of the path length, the tornado was rated EF0, although the survey team determined it reached EF1 for a short time. Approximate time of the tornado occurrence was 516 p.m. to 526 p.m.

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
				

Damage to a barn in rural Crawford County, WI on July 27, 2009. Photo by Todd Shea, NOAA/NWS La Crosse, WI.

GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48], 1.4 NE PLATTEVILLE [42.74, -90.46], 0.7 ESE PLATTEVILLE [42.73, -90.47], 0.8 W PLATTEVILLE [42.73, -90.49]				
	07/27/09 18:50 CST	35K		Flash Flood (due to Heavy Rain)
	07/27/09 20:30 CST	20K		Source: Emergency Manager
High water from swollen creeks was approaching buildings in Platteville. There were significant issues due to high water throughout the city.				
GRANT COUNTY --- 0.7 N BLUE RIVER [43.19, -90.57]				
	07/27/09 19:30 CST	0		Heavy Rain
	07/27/09 19:30 CST	0		Source: Public
GRANT COUNTY --- 0.7 N PLATTEVILLE [42.74, -90.48]				
	07/27/09 20:00 CST	0		Heavy Rain
	07/27/09 20:00 CST	0		Source: Public
A cluster of slow moving thunderstorms produced heavy rainfall during the evening of July 27. Rainfall amounts of 2 to 3 inches in a couple of hours caused flash flooding in Platteville.				

Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WISCONSIN, Southwest				
(WI-Z017) TAYLOR, (WI-Z029) CLARK				
	08/01/09 00:00 CST		0	Drought
	08/07/09 12:00 CST		17K	

As a carry over from July drought conditions reached the severe level in parts of north central and northwest Wisconsin during the first week of August before rainfall impacted the area around August 7th.